

ABSTRACT

Wing of aircraft with slats (1) and one-slotted sliding flaps with driving gear, is characterized by two movable segments in each flap: fore box (2) and main flap (3), which are connected by spring actuators (4) to each other and move on rolls (5) along guides (6) of radius (R) bigger than a half chord (c) of wing airfoil section. The flap segments are located in chamber (7), which composes a sector of cylinder wall with thickness limited by both upper flow-surface of wing box (8) and closing panel (9) situated at the bottom of this box. Fore box of flap is situated in each of its position at least partially within the chamber, whereas the mail flap is situated in its various positions at least partially within the chamber or fully beyond it. Driving gear of each flap is located along wing span and completely hidden in transversal outline of the wing.